This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

Attorney Docket No. 56147US002

Response and Amendment

Page 5 of 10

Allowable Subject Matter

Applicants note with gratitude the Examiner's acknowledgement of the general allowability of the subject matter of Claims 9 and 10. Applicants believe the proposed addition of claims 13 and 14 obviates the objection.

Claim Rejections With Respect to the Chang Reference

The Examiner rejects claims 1-4, 6-8, 11 and 12 under 35 U.S.C. § 102(b) as anticipated by the disclosure of U.S. Pat. No. 3,941,733 to Chang. The Examiner asserts that the Chang reference generally discloses Applicants' claimed funtionalized polyurethane-urea polymers. The Examiner declines to give patentable weight to the use of Applicants' polymers in cosmetic applications, reading the applicable language in the claims as a mere statement of intended use. The Examiner rejects claim 5 under 35 U.S.C. § 103(a) as rendered obvious over the disclosure of the Chang reference. While the Examiner acknowledges the Chang reference is silent as to the molecular weigh of the polyol, the Examiner reads Change as teaching all molecular weights.

Applicants respectfully traverse the rejections. Applicants have amended claim 1 to more positively recite the features of the claimed cosmetic compositions. The Chang reference does not teach or suggest the cosmetic compositions of the present invention. Indeed, the Chang reference fails to disclose or describe any compositions for cosmetic application. Rather, the Chang reference describes compositions for the treatment of leather and similar inanimate substrates (*see, e.g.*, Change at Abstract & col. 1, lines 5-14).

Because Chang fails to disclose or teach the cosmetic compositions of the rejected claims, Applicants respectfully assert that claims 1-8 and 11-12 are patentable over the Chang reference.

In view of the arguments and amendments offered herein, Applicants respectfully submit that the Examiner's grounds for objection and rejection are overcome and

Attorney Docket No. 56147US002

Response and Amendment

Page 6 of 10

respectfully solicit reconsideration and withdrawal of the rejections and allowance of the application.

Respectfully submitted,

Date: November <u></u>, 2002

Jöhn A. Burtis

Registration No. 39,924 Attorney for Applicants

3M Office of Intellectual Property Counsel P.O. Box 33427 St. Paul, Minnesota 55133-3427

Telephone: (651) 736-4235

Version With Markings to Show Changes Made:

I (amended). A composition [in the form of] <u>comprising</u> an aqueous dispersion comprising at least one polyurethane-urea polymer that is functionalized with at least one hydrolyzed or hydrolyzable silyl group, wherein <u>the composition is in the form of a cosmetic article or composition that is capable of forming a film when applied to <u>mammalian skin</u>, hair or nails [said composition is used in cosmetic application], and when said cosmetic application is a hair care composition, said hair care composition does not have a reshapable effect.</u>

[9. The composition of claim 8, wherein said hydrophilic component is a cationic compound having the following structure:

$$R^{1}-N^{+}(R^{2})[(CH_{2}CH_{2}O)_{n}H]_{2}X^{-}$$

wherein R^1 is C_1 to C_{18} alkyl or C_6 to C_{18} aryl or aralkyl optionally substituted in and/or on the chain by N,O, S and combinations thereof;

R² is hydrogen or C₁ to C₁₈ alkyl;

n is an integer from about 1 to 200; and

X is halogen, sulfate, methosulfate, ethosulfate, acetate, carbonate, or phosphate.]

[10. The composition of claim 8, wherein said hydrophilic component is a compound having the following structure:

$$\begin{bmatrix}
O & O & O \\
O & C & C \\
O & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C \\
C & C
\end{bmatrix}$$

$$\begin{bmatrix}
O & O & C$$

wherein each R³ is independently a divalent aliphatic group having an average molecular weight of 200 to 600 comprising ether or ester functional groups selected from the group consisting of:

-CH₂CH₂-(OCH₂CH₂-)_n-, -CH(CH₃)CH₂-(OCH(CH₃)CH₂-)_n-, -(CH₂)₄-(O(CH₂)₄)_n-, -(CH₂)_mCO-[O(CH₂)_mCO]_n- groups; and mixtures thereof;

where m is an integer from about 2 to 5;

n is an integer from about 2 to 15; and

M is a cation selected from the group consisting of Na, H, K, and Li, or a primary, secondary, tertiary, or quaternary ammonium cation and mixtures thereof.]

A composition in the form of an aqueous dispersion comprising at least one polyurethane-urea polymer that is functionalized with at least one hydrolyzed or hydrolyzable silyl group, wherein said composition is used in cosmetic application, and when said cosmetic application is a hair care composition, said hair care composition does not have a reshapable effect; wherein said composition comprises the reaction product of: (a) at least one isocyanate terminated polyurethane-urea prepolymer comprising the reaction product of (i) at least one polyisocyanate, and (ii) at least one polyol; at least one polyfunctional chain extender; (b)_ at least one silyl containing component; and (c) at least one hydrophilic component; and (d) wherein said hydrophilic component is a cationic compound having the following

structure:

R¹-N⁺(R²)[(CH₂CH₂O)_nH]₂X⁻

wherein R¹ is C₁ to C₁₈ alkyl or C₆ to C₁₈ aryl or aralkyl optionally substituted in and/or on the chain by N,O, S and combinations thereof;

R² is hydrogen or C₁ to C₁₈ alkyl;

n is an integer from about 1 to 200; and

Attorney Docket No. 56147US002

Response and Amendment

Page 9 of 10

X is halogen, sulfate, methosulfate, ethosulfate, acetate, carbonate, or phosphate.

14. A composition in the form of an aqueous dispersion comprising at least one polyurethane-urea polymer that is functionalized with at least one hydrolyzed or hydrolyzable silyl group, wherein said composition is used in cosmetic application, and when said cosmetic application is a hair care composition, said hair care composition does not have a reshapable effect;

wherein said composition comprises the reaction product of:

- (a) at least one isocyanate terminated polyurethane-urea prepolymer comprising the reaction product of (i) at least one polyisocyanate, and (ii) at least one polyol;
- (b) at least one polyfunctional chain extender;
- (c) at least one silyl containing component; and
- (d) at least one hydrophilic component; and

wherein said hydrophilic component is a compound having the following structure:

$$\begin{array}{c|c}
 & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O & O \\
 & O & O & O$$

wherein each R³ is independently a divalent aliphatic group having an average molecular weight of 200 to 600 comprising ether or ester functional groups selected from the group consisting of:

-CH2CH2-(OCH2CH2-)n-,

-CH(CH₃)CH₂-(OCH(CH₃)CH₂-)_n-,

-(CH₂)₄-(O(CH₂)₄)_n-,

-(CH₂)_mCO-[O(CH₂)_mCO]_n- groups; and

Attorney Docket No. 56147US002

Response and Amendment

Page 10 of 10

mixtures thereof;

where m is an integer from about 2 to 5;

n is an integer from about 2 to 15; and

M is a cation selected from the group consisting of Na, H, K, and Li, or a primary, secondary, tertiary, or quaternary ammonium cation and mixtures thereof.